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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/856,361	05/22/2001	Takehiko Kezuka	P07222US00/L	6882

881 7590 07/27/2004  
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EXAMINER

GOUDREAU, GEORGE A

ART UNIT PAPER NUMBER

1763

DATE MAILED: 07/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/856,361

Applicant(s)

KEZUKA ET AL.

Examiner

George A. Goudreau

Art Unit

1763

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 17 May 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) 14 and 15 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13, and 16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

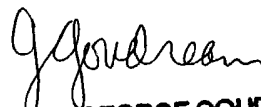
### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

  
GEORGE GOUDREAU  
PRIMARY EXAMINER

1. This action will not be made final due to the new grounds of rejection.
2. Claims 1-13, and 16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

-In claim 1, applicant's referral to a BPSG layer is vague, and indefinite. (i.e.-Applicant fails to recite a specific concentration of B, and P in their BPSG layer. The etch rate of the BPSG layer is dependent upon the concentration of B, and P in the BPSG layer. Applicant's failure to specify the concentration of B, and P in their BPSG layer makes it unclear what etchant rate their claimed doped layer would have. Thus, the composition of the cmp slurry, which is claimed by the applicant, is also unclear to the examiner.) Further, it is difficult for the examiner to know what art to apply to reject applicant's claims in light of applicant's vague referral to a BPSG layer.;

-In line 5 of claim 1, the term "hydrogenfluoride salt" is incorrect, and should be reworded. (i.e.-Is applicant referring to hydrofluoric acid or a salt, which contains both F, and H atoms in it? The term hydrogen should not be written together with fluoride as a single word.); and

-In the second paragraph of claim 1, it is unclear if the solvent can consist of H<sub>2</sub>O alone or if applicant intended to recite that the solvent consists of a solution consisting of H<sub>2</sub>O, and an organic acid or a solution consisting of an organic solvent.

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3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

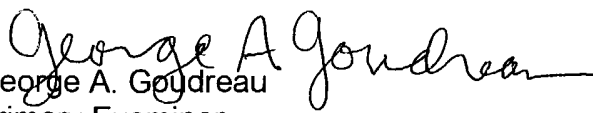
4. Claims 1-2 are rejected under 35 U.S.C. 102(b) as being anticipated by Okamura (JP 09-148,301).

Okamura disclose a process, and a wet etchant, which can etch thermal oxide, and BPSG both a rate of 3 nanometers per minute presumable at room temperature (i.e.-25 C). (The examiner assumes that the wet etchant is employed at room temperature since the reference is silent as to the temperature at which the wet etchant is employed.) The solution is comprised of 0.5 wt. % HF, 37 wt. % NH<sub>4</sub>F with the remainder of the solution being H<sub>2</sub>O. This is discussed in columns 1-4. This is shown in figures 1-3.

5. Applicant's arguments with respect to claims of record have been considered but are moot in view of the new ground(s) of rejection.

6. Any inquiry concerning this communication should be directed to examiner

George A. Goudreau at telephone number (571)-272-1434.

  
George A. Goudreau  
Primary Examiner  
Art Unit 1763